Standard Test Description

Applicable for R320s and R320sc

Abstract

This document describes the working instruction for standard repair package for R320.

Application

This document contains information about what tests must be performed and how to do them.

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1 General

Applicable for all R320 products.

2 Test actions

To verify all components within standard repair package, all test actions must be performed.

3 Testflow

3.1 Software update and activities

Update to latest signalling software and run the service activities software from EMMA shell..

3.2 Go/no go test

Verifies that the radio parameters of the phone fulfils the GSM900/GSM1800 specifications. Start the test according to the instructions supplied with the software. If all measurements are approved this will be visualised and if not, all faults will be presented either on the screen or printed out.

Connect the phone via antenna cable to the test set. Power up the phone with a fully charged battery and a test SIM card inserted.

Start the test script according to the supplied manual and follow the given instructions. Perform an audio test by talking into the microphone and listen to the backlooped sound in the earphone. Check that the green topindicator flashes at “service” and that the buzzer sounds at “call to mobile” if that test is performed. Check that the backlight and the display segments are working OK.

3.3 Manual test

1. KEYPAD TEST
   Verify that the keyboard is OK by pushing keys on the keypad and slide the volume key. Verify that the backlight is OK by pushing a key. Now the illumination should turn on. Wait, and the background illumination turns off after a 10seconds delay. Note: the light must be set to ‘Automatic’ for this to happen.

2. DISPLAY TEST
   To make sure there are no dots missing in the display and that the contrast is OK. Fill the display with characters, e.g “8” and ”+”.
   To adjust the contrast enter [RIGHT] [*] [LEFT] [LEFT] [*] [LEFT] [*]. Choose “Contrast” in the menu and press YES. Adjust contrast with the arrow keys.

3. ON THE AIR CALL TO MOBILE
   To verify the function of the following parts; earphone, microphone, buzzer, volume button and radio.
   Set up a call from land line phone (PSTN) to the mobile phone.
   Answer the phone call by pressing the YES key.
   Check that the buzzer is working and that the backlight switches on OK.
   Also check that the quality of sound both in the mobile phone and the land connected phone (PSTN) is OK.
   End the call by pressing the NO key on the mobile phone.
   Check that the ending procedure is OK and that the speech time is displayed.

4. SYSTEM CONNECTOR TEST
   A vehicle handsfree set is used in this test to verify the system connector.
   Connect a vehicle handsfree kit.
   Attach the phone in the holder. The display should now indicate charging.
   Turn on the phone by pressing the NO key. The battery indicator indicates charging while the name of the operator for the SIM card is shown.
   Set up a call by dialling the number and press YES key. Check if the microphone and earphone are OK. Press NO key to hang up.

5. VIBRATOR TEST
   Verify that the vibrator is OK by activating the vibrator in the menu of the mobile phone. When activated the vibrator vibrates 3 times.

6. IR TEST
   To verify that the IR communication is OK between the mobile phone and the computer by using a "Jet Eye".
   Click on the IR test icon on the screen. A window is shown with the text "No availible infrared devices are in range". Take a phone, insert the SIM card, connect battery and press NO button to start the unit. Press the right arrow key five times, then down key two times. Now the display should say " Infrared Port ". Press YES. Choose "On". Place the phone with the IR window next to the Jet Eye and wait about 2 seconds. On the computerscreen you should be able to read "One availible infrared device in range". If so, the communication is OK!

If the mobile phone is passing these steps of testing without any malfunctions it is OK to return it to the customer.

If there are any failures the phone must be repaired at the service or swapped/sent to higher level of service.

4 Revision History

Rev.	Date	Changes / Comments
C	1999-11-16	Convert from FrameMaker to Word Added R320sc. Corrected manual Ir test instruction.